WHAT IS CLAIMED IS:

1. A data processing network comprising:

5   a first server including a first network interface card (NIC) that connects the first server
        to a central switch;

        a second server including a second network interface card (NIC) that connects the second
        server to the central switch;

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        wherein the first NIC is configured to store a first protocol data unit (PDU) in a buffer
        upon determining that the first PDU is of a first type; and

        wherein the first NIC is further configured to combine the first PDU stored in the buffer
15   with a second PDU of a second type upon determining that the first and second PDU
        share a common target.

2. The network of claim 1, wherein the first type of PDU comprises a management PDU and the
second type of PDU comprises an application PDU.

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3.   The network of claim 1, wherein the first type of PDU is stored in the buffer upon
determining that the size of the PDU is less than a predetermined maximum size.

4.   The network of claim 1, wherein the first PDU is combined with the second PDU upon
25   determining that size of the second PDU is less than the size of the network's maximum
transmission unit (MTU).

5.   The network of claim 1, wherein the first PDU is generated at a data link level of the
network's protocol stack such that the first PDU includes only a media access control (MAC)
30   header suitable for communicating between devices that are directly connected to the central
switch.

6. The network of claim 5, wherein network protocol stack comprises the TCP/IP protocols and the second PDU comprises an application PDU generated at the highest level of the protocol stack such that the second PDU includes a MAC header, an IP header, and a TCP header.

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7. The network of claim 1, wherein the first server comprises a dedicated management server suitable for managing each of server appliance that is physically connected to the central switch.

8. The network of claim 7, wherein the second server comprises one of the at least one server

10 appliances.

9. The network of claim 1, wherein the first NIC includes a processor, a buffer, and a computer readable medium containing:

15   code means for distinguishing a management PDU type from an application PDU type;

     code means for storing a management PDU in the buffer;

     code means for determining if an application PDU and the management PDU share a

20   common target;

     code means for combining the management PDU with the application PDU responsive to determining that they both share a common network target; and

25   code means for forwarding the combined PDU to the network target.

10. The network of claim 9, wherein the code means for storing the management PDU in the buffer includes code means, responsive to identifying a management PDU, for determining if there is an available entry in the buffer.

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11. The network of claim 10, further comprising code means, responsive to determining that the buffer includes an available entry, for determining if the management PDU is eligible for combining with a subsequent management PDU.

5   12. The network of claim 11, wherein the code means for determining the management PDU is an eligible PDU includes code means for comparing the size of the PDU to a pre-determined maximum size.

13. A method of transmitting protocol data units (PDUs) across a data processing network

10   comprising:

    determining that a first PDU comprises a first type of PDU and, responsive thereto, storing the first PDU in a buffer;

    determining that a second PDU comprises a second type of PDU different from the first type and, responsive thereto, combining the first PDU with the second PDU upon determining that the first and second PDU share a common target address; and

    forwarding the combined PDU to the target address.

20   14. The method of claim 13, wherein storing the first PDU in the buffer includes determining if the buffer includes an available entry.

15. The method of claim 13, wherein storing the first PDU in the buffer includes determining if

25   the buffer exceeds a predetermined size.

16. The method of claim 13, wherein the first PDU comprises a management PDU type and the second PDU type comprises an application PDU.

30   17. The method of claim 13, wherein combining the first and second PDUs includes appending the management information in the first PDU to the application information in the second PDU.

18. The method of claim 17, wherein combining the first and second PDUs includes modifying a data link layer header of the second PDU to reflect the increased size of the modified PDU.

5   19.   The method of claim 18, wherein the remaining headers of the combined PDU are unchanged from their corresponding headers in the second PDU.

20. The method of claim 18, wherein combining the first and second PDUs includes modifying the media access control header of the second PDU to reflect the increased size of the combined

10   PDU.

21. The method of claim 13, further comprising, upon receiving the a PDU from the network and determining that the received PDU comprises a combined PDU, stripping the information associated with the first PDU from the combined PDU and processing the remaining PDU in the

15   same manner as processing a PDU of the second type.

22. A management server suitable for operating in a data processing network, comprising:

    a host processor connected to a host memory via a host bus;

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    a bridge connecting the host bus to an I/O bus;

    a network interface card (NIC) connected to I/O bus, wherein the NIC includes a processor and a buffer, and further wherein the processor is configured to differentiate

25   between protocol data units (PDUs) of a first type and PDUs of a second type, buffer PDUs of the first type in the buffer, and to combine PDUs of the first type stored in the buffer with PDUs of the second type upon determining that the first and second PDUs have a same common address.

23. The server of claim 22, wherein the first type of PDU comprises a management PDU generated at a data link level of the network's protocol stack and the second type of PDU comprises an application PDU generated at the highest level of the protocol stack.

5   24. The server of claim 23, wherein combining PDUs of the first type and PDUs of the second type includes appending payload information from the first PDU type to the payload information of the second PDU and modifying the data link layer header of the combined PDU to reflect the increased size of the combined payload.

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